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Fig. 1

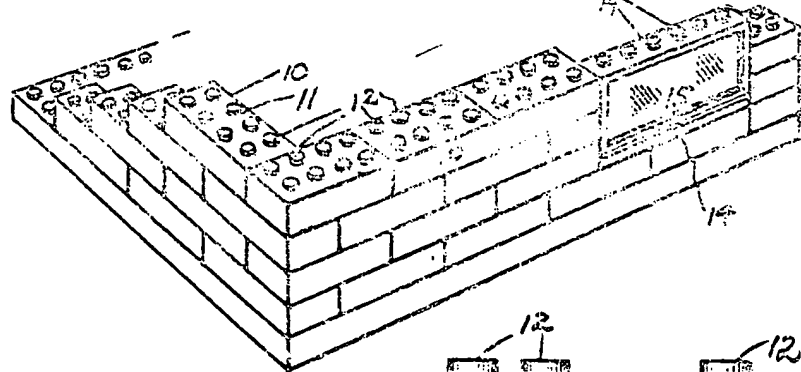


Fig. 2

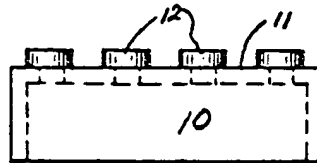
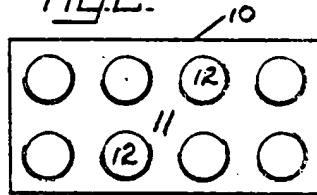


Fig. 3

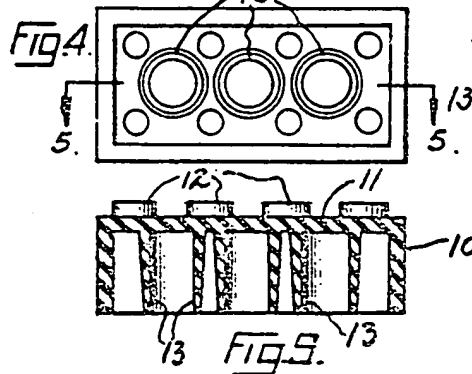


Fig. 4

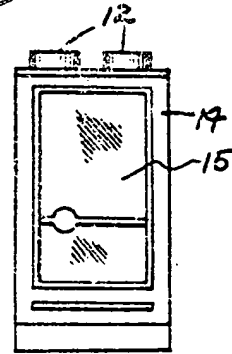


Fig. 6



Fig. 7

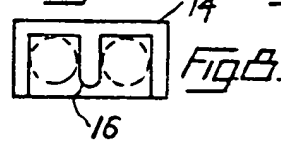


Fig. 8

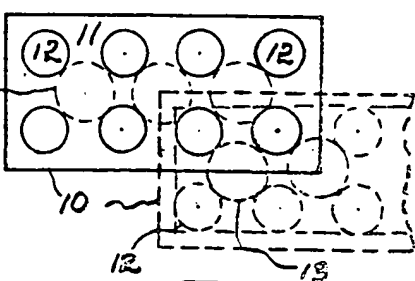


Fig. 9

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COMMONWEALTH OF AUSTRALIA
PATENT SPECIFICATION

40, 370/58

Complete Specification Lodged 10th August, 1959.

Application Lodged (No. 40, 370/58) 8th August, 1958.

Applicant (Actual Inventor) Kai Ingemann Jespersen.

LAPSED BEFORE ACCEPTANCE.

Complete Specification Published 11th February, 1960.

Classification 53.9.

International Classification A 63 h.

Drawing attached.

COMPLETE SPECIFICATION.

IMPROVEMENTS IN AND RELATING TO BRICKS FOR TOY BUILDING PURPOSES.

The following statement is a full description of this invention including the best method of performing it known to me:-

This invention relates to bricks for toy building purposes.

The invention has been devised to provide certain improvements in such toy building sets whereby the components can be more easily and securely located in place, and the building scope enlarged, as well as giving greater latitude in the assembly to obtain extended and varied effects. Other advantages will be apparent from the following description.

According to this invention the toy bricks or other toy building components of any suitable material, size and shape, are characterised in that at least one face thereof has thereon or therein one or a series of projections forming engaging elements which is or are arranged to engage with formations embodied in the underside of a similar toy brick or other component adapted to be laid thereon and so locating and securing said brick or the like in position thereon or at overhung and other varied locations, and thereby enabling successive rows and layers of bricks or other components to be assembled as well as other effects obtained, and the whole structure of such components interlocked together.

A foundation or base plate as well as roof plates, floor plates and the like may be provided for association with wall assemblies or bricks and the like and have a series of engaging projections arranged on one face usually the top one to engage with the interior formations of a row or rows of bricks laid thereon, and cell-like formations are also provided in the interior or underside for engaging the components to enable varied structural assemblies to be effected.

The bricks or other components may be made in different lengths and sizes to suit the building requirements and also provide for corners, divisional walls and the bonding of the rows.

The bricks may be made in rectangular, circular and other shapings to suit the requirements of toy building sets.

The engaging projections on the top faces of the parts may be in the form of one or a series of raised parts on the top face of each brick and arranged in from the edge at a location to engage within the side and end walls of the hollow underside of another brick laid thereon. These projections may be in the form of studs integral with the brick and of circular, rectangular, triangular or other suitable shapings, and may be of short height and flat faced, and arranged in number governed by the length and form of the article.

The interior engaging formations of the bricks and other components complementary to the engaging projections may be of tubular form integral with the top wall of such parts and so spaced as to form between them and the outer edges of the interior of said parts, cavities to engage the stud-like projections on the top faces of other parts. By this arrangement it is possible to place bricks or other parts in overhung and staggered assembly and obtain a wide range of effects.

In order to describe the invention more fully, reference will now be made to the accompanying drawings, wherein:-

Figure 1 is a perspective view of a wall partly constructed of these toy bricks, while

Figures 2 and 3 are plan and side elevation respectively of one form of brick used in the general construction, and

Figure 4 is a plan of the underside and

Figure 5 is a sectional elevation on line 5-5 of Figure 4.

Figures 6, 7 and 8 are respectively front and side elevations, and plan of the underside of a window component embodying the locking method employed in the bricks, while

Figure 9 shows a plan of a brick as in Figures 1, 2 and 5 inclusive illustrating the method of engagement of the locking element with a second brick shown in dotted lines and overhung at one end.

The toy building bricks generally indicated by the reference numeral 10 are formed of plastic material with a hollow interior open on the underside and closed on the top face 11 which is of flat form and has a series of regularly spaced engaging projections or elements 12 therein which may be arranged in one or more rows or lines and with any number in the rows according to the size or area of the bricks 10 which may be made in long lengths, or short ones to suit the building requirements. Said engaging elements 12 may be hollow as will be seen in dotted lines in Figure 3 and are upstanding for a short distance above the face 11.

The interior of the bricks 10 have a series of integral tubular elements 13 which are tapered towards their end and disposed in line medially between the rows of the engaging elements 12 so that the space between the outside thereof and the side walls and end walls on the interior of the brick is such as to jam the engaging elements 12 therein as same are engaged in such spacings by pushing them into place as seen in Figure 9.

The bricks 10 may be made in half sizes, corner bricks and the like to assist in making a wall with usual bonding in the brickwork and can be arranged to overhang at an end or side as shown in Figure 9.

The application of these engaging elements 12 is not confined to the bricks but can be applied to other components to be used in building work or sets, and an example is

shown in Figures 6, 7 and 8 where a window unit 14 is illustrated and consists of a framework with a transparent insert 15 and has the engaging elements 12 at one end and spaced prongs 16 at the other end between which the elements 12 of bricks or other parts engage. This principle may be employed in door frames or units and many other components which may be introduced into a building set.

The engaging elements may be embodied in plates or panels or the like which form roofs or base areas or the like and complementary recesses or the like provided in other components, and the invention is not limited to the toy bricks alone.

The claims defining the invention are as follows:-

1. Toy bricks or other toy building components formed of any suitable material, size and shape, characterised in that at least one face thereof has thereon or therein one or a series of projections forming engaging elements which is or are arranged to engage with formations embodied in the underside of a similar toy brick or other component adapted to be laid thereon and so locating and securing said brick or the like in position thereon or at overhung and other varied locations, and thereby enabling successive rows and layers of bricks or other components to be assembled as well as other effects obtained, and the whole structure of such components interlocked together. (8th August, 1958).
2. Toy bricks or other toy building components according to Claim 1, wherein the engaging elements are formed on at least one flat face of such bricks or the like and are each of raised circular studs of short height having a flat top face. (8th August, 1958).
3. Toy bricks or other toy building components according to either of Claims 1 or 2, wherein the engaging elements are arranged in one or more rows, such rows being parallel and the number of such elements in each row and the number of rows being governed by the size and purpose of said bricks or components. (8th August, 1958).
4. Toy bricks or other toy building components according to any of the preceding Claims, wherein such bricks or other components are of hollow form open on the underside. (8th August, 1958).
5. Toy bricks or other toy building components according to Claim 1, wherein the formations embodied in the underside of such bricks or components consist of one or more tubular elements formed in a hollow provided in said bricks or components and the space between such tubular element or elements and the sides and ends of the same being adapted to have the engaging elements jammed therein. (8th August, 1958).
6. Toy bricks or other toy building components according to Claim 5, wherein the tubular elements taper towards their ends. (8th August, 1958).
7. Toy bricks or other toy building components according to Claim 5, wherein the formations with which the engaging elements are engaged are one in the form of spaced prongs between which such engaging elements jam. (8th August, 1958).
8. Toy bricks or other toy building components constructed substantially as herein described and as illustrated in Figures 1, 2, 3, 4, 5 and 9 of the

accompanying drawings. (8th August, 1958).

9. Toy building components constructed substantially as herein described and as illustrated in Figures 6, 7 and 8 of the accompanying drawings. (8th August, 1958).

CHAS BURNES.

Patent Attorney for Applicant.

Related Art:

<u>Serial No.</u>	<u>Application No.</u>	<u>Classification.</u>
229, 550	44, 961/59	53.9; 81.1
163, 751	16, 206/53	53.9; 81.1
100, 283	2433/36	53.9.